

## DOCUMENT RESUME

ED 385 003

EA 026 907

AUTHOR Fouts, Jeffrey T.  
TITLE Schools within a School: Evaluation Results of Year Two of a Restructuring Effort.  
PUB DATE Jul 95  
NOTE 40p.; For the report on the first year, see ED 370 195.  
PUB TYPE Reports - Evaluative/Feasibility (142) -- Tests/Evaluation Instruments (160)  
EDRS PRICE MF01/PC02 Plus Postage.  
DESCRIPTORS High Schools; Nontraditional Education; \*Outcomes of Education; \*Program Effectiveness; Program Evaluation; Program Implementation; \*School Restructuring  
IDENTIFIERS \*Schools Within a School

## ABSTRACT

In 1990, Kent-Meridian High School in Kent, Washington, decided to implement four schools-within-schools, each with its separate academic and career focus. The first school, focusing on the area of health science, was implemented in 1992. A second school-within-the-school, the International Business and Global Studies (IBGS) School, was implemented during the second year of the restructuring effort (1993-94). This paper contains two papers that report evaluation results for year 2 of the Health Science School (HSS) and for year 1 of the IBGS. Both schools feature an integrated curriculum, cooperative learning, the direct application of learning to life situations, flexible scheduling, cohort learning, and alternative assessment strategies. Findings indicate that second-year HSS students continued to receive a unique educational experience; however, the results of the Classroom Environment Scale (CES), faculty interviews, and parent questionnaires indicate that the degree of innovation, cohesiveness, and integration declined. First-year participation in both schools did not translate into higher grades. Faculty for first-year HHS and IBGS students believed that they had achieved limited success in implementing the desired program. Recommendations include: that each program resolve its long-term leadership question, move forward with curriculum development, practice faculty evaluations of the curriculum, prevent curriculum integration from dominating the restructuring effort, and improve parental involvement. Thirteen tables are included. (LMI)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

EDRS

ED 385 003

Schools Within A School:  
Evaluation Results of Year Two of a Restructuring Effort

Jeffrey T. Fouts  
Professor of Education  
Seattle Pacific University

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

☒ This document has been reproduced as  
received from the person or organization  
originating it.

☐ Minor changes have been made to improve  
reproduction quality.

\* Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS  
MATERIAL HAS BEEN GRANTED BY

J. Fouts

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)."

## Introduction

In 1990, Kent-Meridian High School in Kent, Washington, decided to implement four schools within schools, each with its separate academic and career focus. The schools were to be implemented incrementally over a three year period beginning in the fall of 1992 with a school focusing on the area of Health Science. A three year evaluation plan was included with the restructuring efforts. That evaluation plan and the evaluation results of the first year of restructuring was reported previously (see Fouts, J.T. (1994), *A School within a School: Evaluation Results of the First Year of a Restructuring Effort*, ERIC Document Reproduction Service No. ED370195).

During the second year of the restructuring effort (1993-1994) a second school within the school was added with an academic/career focus on International Business and Global Studies. The first section of this paper reports the results of the evaluation of Year 2 (1993-1994) for the Health Science School. The second section of this paper reports the results of the evaluation of Year 1 (1993-1994) for the International Business and Global Studies School.

***EVALUATION REPORT FOR YEAR 1 (1993-1994)***  
***INTERNATIONAL BUSINESS AND GLOBAL STUDIES SCHOOL***  
***KENT-MERIDIAN HIGH SCHOOL***

Prepared by:

Jeffrey T. Fouts

Professor of Education

Seattle Pacific University

August 3, 1994

## TABLE OF CONTENTS

|   |           |
|---|-----------|
| List of Tables  | page<br>3 |
| Executive Summary   | 4         |
| Introduction  | 6         |
| Research Questions  | 6         |
| Participants in the Program   | 6         |
| Year 2 Results  | 7         |
| <br><u>Question 1 -- To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?</u> |           |
| Sources of data   | 7         |
| Findings  | 8         |
| Summary and Conclusions   | 10        |
| <br><u>Question 2 -- How has the IBGS School affected typical educational outcomes and student behaviors?</u>   |           |
| Sources of data   | 10        |
| Findings  | 10        |
| Summary and Conclusions   | 12        |
| <br><u>Question 3 -- How do teachers and parents perceive the program?</u>  |           |
| Sources of data   | 12        |
| Findings  | 12        |
| Summary and Conclusions   | 14        |
| Recommendations   | 14        |

## List of Tables

|  | page |
|--|------|
| <b>Table 1 -- Classroom Environment Scale Results for IBGS Students and Tenth Grade Comparison Group</b>   | 9    |
| <b>Table 2 -- IBGS and Tenth Grade Comparison Group Absentee and Grade Point Averages</b>  | 11   |
| <b>Table 3 -- -- Estes Attitude Scale Mean Scores and Effect Sizes for IBGS Students and a Comparison Group of Tenth Grade Students From the Traditional Program</b> | 11   |
| <b>Table 4 -- IBGS Confidential Parent Questionnaire Results</b>   | 13   |

## EXECUTIVE SUMMARY

The International Business and Global Studies (IBGS) School began in the Autumn of 1993. It is the second of four "schools-within-a-school" at Kent-Meridian High School. The IBGS School approach incorporates an integrated curriculum, cooperative learning, the direct application of learning to life situations, flexible scheduling, cohort learning, and alternative assessment strategies. The evaluation focused on three areas and produced the following findings.

1. Program Implementation (p. 7) -- The IBGS School's first year began with difficulties but got better as the year progressed. Student responses, teacher interviews, and parent questionnaire results indicate that new approaches were tried this year, with new demands and expectations placed on students. However, the degree to which these new demands and expectations produced desirable results differed considerably depending on the student. The CES results indicated that classroom management and other difficulties may have negatively impacted the program as more structure or a period of transition may have been needed by many of the IBGS students.
2. Educational Outcomes (p. 10) -- Participation in the IBGS program did not result in higher grades for students and, in fact, may have resulted in a slight decline. IBGS students had 41% fewer all day absences than did students in the traditional program. IBGS student attitudes toward academic subjects were slightly higher, but may have been the results of initial academic differences between the two groups.
3. Teacher and Parent Perceptions (p. 12) -- The faculty of IBGS believed that they had limited success in implementing the desired program early in the year, but that by semester the program was moving forward with positive results. There were considerable challenges during the year, but the teachers felt that adjustments have been made and the program can move forward. Long-term leadership of the program and time for planning remain as concerns, but the teachers are guardedly optimistic. Parents are divided in their view of the program at this time. About half seem to view it positively, while just as large a number of parents have negative views or are skeptical of the program at this point.

### Recommendations to the IBGS Faculty: (p. 14)

1. Initial implementation difficulties might be traced to one or a *combination* of two different factors: (1) the program was conceived in such a manner that it made implementation difficult and problematic; (2) this was a unique group of students that was not a good "match" with the IBGS concept. These two factors should be discussed at length to gain some understanding of the dynamics at work in IBGS and to help determine the extent and nature of program modifications.
2. The long-term leadership question of the IBGS School should be resolved at the earliest possible date.

3. Curriculum development, the continued development of the integrated model and a consensus on its implementation must move forward.
4. Once this has been accomplished, faculty should evaluate which classroom and curricular practices were successful and which need revision. The faculty must work at clarifying course outcomes, expectations, and timelines for students and communicate those clearly.
4. The curriculum integration is only one aspect of the restructuring and should not dominate the efforts.
5. Educational research shows conclusively that *parental involvement* in the educational process is extremely important for achieving educational outcomes. Added attention should be given to this restructuring component.



## INTRODUCTION

The International Business and Global Studies (IBGS) School began in the Autumn of 1993. It is the second of four "schools-within-a-school" at Kent-Meridian High School. The restructuring efforts focused on the following:

"Our goal is to provide an educational experience that makes connections among different academic subjects, emphasizes performance rather than knowledge, and prepares students to go to work or to further education and then to work after they graduate from high school."

The evaluation plan for the International Business and Global Studies School at Kent-Meridian High School employs product evaluations for the school year 1993-94, and was based on a model used for the Health Science School. The design of the evaluation uses quantitative information (hard data) and qualitative information (soft data) for the evaluation of specific academic, affective, and attitudinal outcomes in the IBGS School.

The overt and primary goal of this program focuses on the student. However, since school programs are part of a larger system and cannot operate without having an impact on others within the system, it is necessary to consider its affect on two other important groups: teachers and parents. Developing positive relations and attitudes with parents, and with those implementing the program, teachers, are important goals of all educational programs.

### Research Questions

In this first year of the program, the evaluation focused on the following research questions:

1. To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?
2. How has the IBGS School affected typical educational outcomes and student behaviors?
3. How do teachers and parents perceive the program?

### Participants in the Programs

Throughout the evaluation process, data were collected from IBGS students, teachers and parents, and from a comparison group of students in the regular tenth grade school program. Any evaluation of student outcomes in a special program necessitates a comparison group of students to use as a standard. Students in the IBGS School were

self-selected, and since participation was not mandatory there is a degree to which the participants in the program were not truly representative of the rest of the student body. This is an inherent weakness in evaluation research, and relegates the research design to a causal-comparative model rather than experimental or quasi-experimental. Nonetheless, a comparison group can be used as a yardstick, with the recognition that the design is less than ideal and that the results must be interpreted with this design weakness in mind.

The ninth grade GPA means, medians, and standard deviations for the IBGS students and a random sample of tenth grade students in the regular program are presented below.

|                           | Mean | Median | Std Dev |
|---------------------------|------|--------|---------|
| IBGS<br>(n=87)            | 2.91 | 3.00   | .86     |
| Regular Program<br>(n=89) | 2.37 | 2.58   | 1.11    |

The above data, GPA distributions and statistical analysis show the following:

1. The students attracted to the IBGS program are more academically oriented students than are the students in the regular program. They are also less diverse in academic achievement than are students in the regular program. The distribution of the GPA's indicate that the IBGS program has few or very low achievers and many more top students.
2. Last year's comparison group had a ninth grade GPA of 2.61 compared to this year's 2.37. It is important to consider that the tenth grade students in the regular program this year are representative of students in this regular program, but not representative of all tenth graders *in general*. The self-selection of a higher percentage of stronger students into the HSS I & II and IBGS programs is the most probable explanation for this lower GPA of regular program students. When this is considered, the difference between the IBGS students and tenth graders in general may be reduced slightly.

## YEAR 1 RESULTS

Question 1 -- To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?

### Sources of data

In April and May a modified version of the Classroom Environment Scale (CES) was completed by the IBGS students and a comparison group randomly selected from tenth graders in the regular program. The CES is a recognized research assessment measure of school and classroom climate. For the purposes of this evaluation the CES

wording was modified slightly to reflect students' perceptions of their overall educational program, rather than a particular classroom. A description of the CES subscale scores is provided in the appendix. In June an outside evaluator conducted interviews with the faculty of the IBGS School. Parents were given an end of the year questionnaire regarding their perceptions on the program.

### Findings

The intent of this program is to provide an alternative educational experience to students. The IBGS School approach incorporates some degree of an integrated curriculum, cooperative learning, the direct application of learning to life situations, flexible scheduling, cohort learning, and alternative assessment strategies. Such an approach would differ from what most students experience in high school when learning is segregated, courses are taken independent of each other, the environment is impersonal, and learning and assessment are traditional. When contrasting two such learning approaches student perceptions of their educational experiences and the learning environment should differ. The degree to which these facets of the IBGS program were actually implemented in the classrooms is reflected by the results of the CES.

The results of the CES assessment for IBGS and a comparison group of tenth grade students and effect sizes are presented in Table 1. Possible scores on the CES range from 0 to 10 for each scale. An effect size is a widely recognized method for interpreting statistics that considers the influence of averages, but also variations within groups. It is computed by subtracting the means of the groups being compared, divided by the standard deviation of the comparison group. An effect size of less than .2 is considered negligible, .2 is considered a small difference, .5 is considered a moderate difference, and .8 is considered a large difference.

These results are difficult to interpret for several reasons. First, the IBGS program, while employing a degree of integration, was not integrated by design, to the degree that HSS was last year, and had different teachers. This less distinct program should not be expected to create an environment identical to what HSS did last year. Second, IBGS has higher achieving students than either last year's HSS or this year's traditional program students. It is possible that the differing nature of students must be considered when designing programs. Third, and maybe most important, interviews with the faculty indicated that they came to the conclusion that this group of tenth graders were rather unique in a number of ways, resulting in difficult group dynamics. This may have mitigated against the affects of the program.

The results of the CES indicate that the perceived educational environment of the IBGS school differed from the regular program environment on every scale but Teacher Support. The most notable differences are on scales where a combination of low scores indicates classroom management difficulties. The low scores on Task Orientation, Order

**Table 1**  
**Classroom Environment Scale Results for IBGS Students and Tenth Grade Comparison Group**

|                         | IBGS<br>mean (sd) | Comp. Group 10th gr.<br>mean (sd) | Effect<br>Size |
|-------------------------|-------------------|-----------------------------------|----------------|
| <i>Involvement</i>      | 4.1 (1.9)         | 4.8 (2.4)                         | .29 (small)    |
| <i>Affiliation</i>      | 6.4 (1.8)         | 5.3 (2.3)                         | .48 (moderate) |
| <i>Teacher Support</i>  | 5.3 (2.4)         | 4.9 (2.4)                         | .17            |
| <i>Task Orientation</i> | 3.6 (1.9)         | 5.9 (2.2)                         | 1.0 (large)    |
| <i>Competition</i>      | 4.9 (2.2)         | 5.7 (2.0)                         | .4 (small)     |
| <i>Order and Org.</i>   | 1.7 (1.8)         | 3.8 (2.2)                         | .95 (large)    |
| <i>Rule Clarity</i>     | 3.9 (2.4)         | 6.0 (2.1)                         | 1.0 (large)    |
| <i>Teacher Control</i>  | 3.5 (2.3)         | 5.1 (2.4)                         | .67 (moderate) |
| <i>Innovation</i>       | 6.7 (2.0)         | 4.8 (2.4)                         | .79 (large)    |

and Organization, Rule Clarity, and Teacher Control and coupled with a lower Involvement score suggest that student activity in the classes was not focused on the learning to the extent that may be desirable. Interestingly, the combination of high Innovation score and low Teacher Control score suggests that teachers in the program did attempt to use a variety of new and different teaching strategies and techniques, including increased student freedom, to involve the students, but for whatever reason, the other data suggest that this group of students did not respond as desired to the new approach. While group affiliation was higher (Affiliation), it does not appear that rapport with teachers increased over that experienced in the traditional program.

These results were supported by the interviews conducted with the IBGS faculty at the end of the school year. While there was a variety of individual experiences during the year, the interviews with the IBGS faculty revealed the following:

1. There was general agreement that the beginning of the year had been very difficult, but that as the year progressed it got much better. However, many felt that there were still times when the classes seemed chaotic and not on task to the degree desired.

2. A degree of curriculum integration was accomplished, and that the second year would be better.

3. A satisfactory degree of community within the program had developed by the end of the year.

The results of the parent questionnaire are presented in Table 4. The return rate for the questionnaire was low, about 32%. Among this group there was exhibited considerable concern by parents about the program. Few respondents included written comments about their perception of the program, but the most common reference was to problems with disorganization and the difficult transition given that students were asked to do things and accept responsibility to a degree which they had not done before. This later comment suggests that a different program was implemented during the year, however successfully.

#### Summary and conclusions.

The IBGS School's first year began with difficulties but got better as the year progressed. Student responses, teacher interviews, and parent questionnaire results indicate that new approaches were tried this year, with new demands and expectations placed on students. However, the degree to which these new demands and expectations produced desirable results differed considerably depending on the student. The CES results indicated that classroom management and other difficulties may have negatively impacted the program as more structure or a period of transition may have been needed by many of the IBGS students.

#### Question 2 -- How has the IBGS Science School affected typical educational outcomes and student behaviors?

##### Sources of data.

Grade point averages, absentee rates, and Estes Attitude Scales (EAS) for English, math, and science for the students in the IBGS School and a random samples of students selected from the regular tenth grade program were calculated and compared. The EAS was administered at the end of the year (June).

##### Findings.

The absentee and grade point averages for the IBGS students and a tenth grade comparison group of students is presented in Table 2. These results indicate that participation in the IBGS School did not result in overall higher yearly grades for these students. These IBGS students were identified at the beginning of the year as significantly higher in academic achievement when compared to the traditional program students based

on ninth grade GPA scores. During this year the differences disappeared, as also happened with the HSS students last year and this year. This may be due to several factors including teacher differences and differing or higher learning expectations in IBGS and HSS. It may be that the programs have had a negative effect on learning as measured by grades, or that the students have not yet adapted to the new demands, expectations, and standards under which they find themselves.

The students in IBGS missed significantly fewer full days of school than did the students in the traditional program, but there was no difference in single period absences.

Table 2  
IBGS and Tenth Grade Comparison Group Absentee and Grade Point Averages.

|                             | <u>IBGS</u> | <u>Other 10th Graders</u> | <u>Effect Size</u> |
|-----------------------------|-------------|---------------------------|--------------------|
| First Semester GPA          | 2.7         | 2.5                       | .2 (small)         |
| Second Semester GPA         | 2.4         | 2.4                       | --                 |
| TOTAL Year GPA              | 2.6         | 2.5                       | .1                 |
| Avg. Days Absent            | 4.5         | 7.6                       | .41 (small)        |
| Avg. Single Period Absences | 31.8        | 34.1                      | --                 |

The results of the Estes Attitude Scale (EAS) for the IBGS students and a tenth grade comparison group of students is presented in Table 3. IBGS students exhibited more positive attitudes toward the subjects of math and science than did students in the regular program. While this may be due to program effects, it may also be the result of IBGS students' higher academic achievement coming into the program.

Table 3  
Estes Attitude Scale Mean Scores and Effect Sizes for IBGS Students and a Comparison Group of Tenth Grade Students From the Traditional Program

|                | <u>IBGS</u> | <u>Traditional Program</u><br><u>Tenth Graders</u> | <u>effect size</u> |
|----------------|-------------|--|--------------------|
|                | <u>mean</u> | <u>mean</u>  |                    |
| <i>English</i> | 43.8        | 46.0   | .17                |
| <i>Math</i>    | 54.3        | 52.0   | .22 (small)        |
| <i>Science</i> | 52.3        | 49.7   | .28 (small)        |

### Summary and conclusions.

Participation in the IBGS program did not result in higher grades for students and, in fact, may have resulted in a slight decline. IBGS students had 41% fewer all day absences than did students in the traditional program. IBGS student attitudes toward academic subjects were slightly higher, but may have been the results of initial academic differences between the two groups.

### Question 3 -- How do teachers and parents perceive the program?

#### Sources of data.

An end of the year interview of the teachers was conducted to determine their perceptions of the program, its implementation, and its future. Parents were mailed a confidential questionnaire at the end of the year.

#### Findings.

Interviews with the faculty of HSS I revealed a general feeling of optimism about the IBGS program, while at the same time voicing concerns about specific developments during the year. While there was considerable agreement about the potential value of the integrated curriculum and the schools-within-a-school concept, there was a common acknowledgment that the beginning of the year had not gone particularly well. The following common perspectives emerged from the interviews.

1. The teachers still believe in the integration (people & subjects) as important and the direction to go. A significant number of teachers commented that they had to rethink their teaching approach, and truly benefited from the cooperation with the other teachers.
2. The beginning of the year was very difficult, but considerable progress had been made by both the teachers and students to get the program on track.
3. Time constraints remain a problem, particularly given the large number of students who have signed up for next year and the work that is yet to be done.
4. Leadership of and communication within the program has been provided by one key individual teacher. There is concern about whether this arrangement can continue given the demands on this individual.
5. The student use of unstructured time needs careful attention and planning by the teachers.

The results of the IBGS parent questionnaire are presented in Table 4. The low return rate of 32% means that the results must be interpreted with caution and may not be representative of all parents in the program. However, these results do correspond with the other evaluation data for the IBGS program. The questionnaire results showed that parents were divided over their view of the program. Consistently about 40% to 50% of the parents responded negatively to the seven questions, with 42% indicating they would not want their child in the program if they had it to do over again and 17% undecided. This indicates considerable dissatisfaction by a large number of people. However, about 40-45% indicated satisfaction with the program. These findings were consistent with the written comments where both satisfaction and dissatisfaction were expressed. However, the most common references were to problems with disorganization, lack of structure, and the difficult transition to the program expectations given that students were asked to do things and accept responsibility to a degree which they had not done before. These views are most probably due to the difficult beginning, lower than expected grades, and dissatisfaction expressed by the students.

Table 4  
IBGS Confidential Parent Questionnaire Results

---

|  |       |          |                      |           |
|--|-------|----------|----------------------|-----------|
| 1. My child seems to have a positive attitude about their school experience this year.       |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 17%  | 35%   | 24%      | 24%                  |           |
| 2. Participation in the IBGS School has been beneficial to my child.                         |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 10%  | 38%   | 28%      | 21%                  | 3%        |
| 3. My child has demonstrated increased interest in school this year.                         |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 7%   | 38%   | 21%      | 28%                  | 7%        |
| 4. Participation in the IBGS School has had a positive impact on my child's self-confidence. |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 10%  | 35%   | 24%      | 24%-                 | 7%        |
| 5. Overall, I have been pleased with my child's educational program this year.               |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 14%  | 28%   | 21%      | 28%                  | 10%       |

---



6. I would recommend participation in the IBGS School or similar program to others in the District.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 21%            | 24%   | 14%      | 24%               | 17%       |

7. If I had it to do over again, I would want my child in the IBGS School.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 17%            | 24%   | 7%       | 35%               | 17%       |

### Summary and Conclusions

The faculty of IBGS believed that they had limited success in implementing the desired program early in the year, but that by semester the program was moving forward with positive results. There were considerable challenges during the year, but the teachers felt that adjustments have been made and the program can move forward. Long-term leadership of the program and time for planning remain as concerns, but the teachers are guardedly optimistic. Parents are divided in their view of the program at this time. About half seem to view it positively, while just as large a number of parents have negative views or are skeptical of the program at this point.

### **RECOMMENDATIONS**

1. In many ways, the difficulty experienced by IBGS early in the year is similar to those experienced by the Health Science School during the first semester of its first year, only much more pronounced. The IBGS program is certainly not a more radical departure from traditional practices than what HSS did the first year. Yet, the first year outcome has been less satisfactory in a number of ways. For whatever reason, and while progress has been made, the IBGS students as a group do not appear to have responded to the experience to the degree desired. The early problems may have colored many of the perceptions and behaviors of the participants and parents for the entire year, meaning that when adjustments were made in the program, they were not given much chance of success because of the earlier difficulties. The cause of the magnitude of the problems might be traced to one or a *combination* of two different factors: (1) the program was conceived in such a manner that it made implementation difficult and problematic; (2) this was a unique group of students that was not a good "match" with the IBGS concept. The degree to which each of these two factors may have determined the outcome for the year is very difficult to determine and can only be answered by the faculty of IBGS. These two factors should be discussed at length to gain some understanding of the dynamics at work in IBGS and to help determine the extent and nature of program modifications.

2. The long-term leadership question of the IBGS School should be resolved at the earliest possible date. Expecting one assistant principal to provide the leadership of the schools while maintaining all the additional duties typical of an assistant principal does not appear to be a solution. Nor is it adequate to depend on one volunteer teacher long-term. One model would be a "dean" of the school appointed from existing faculty. This could serve as a leadership model for the other schools at Kent-Meridian.

3. Curriculum development, the continued development of the integrated model and a consensus on its implementation must move forward. Focus should be centered once again on the restructuring goal articulated by the school:

"Our goal is to provide an educational experience that makes connections among different academic subjects, emphasizes performance rather than knowledge, and prepares students to go to work or to further education and then to work after they graduate from high school."

With regards to integration, this is a modest goal and does not require a totally integrated curriculum. By avoiding the "tyranny of integration" trap, the task should become more manageable and less time consuming. A general consensus or acceptance should be reached within each level of the IBGS School and between levels of the school. A consultant knowledgeable with this process can be of considerable assistance.

4. Once this has been accomplished, faculty should evaluate which classroom and curricular practices were successful and which need revision. The faculty must work at clarifying course outcomes, expectations, and timelines for students and communicate those clearly.

5. The curriculum integration is only one aspect of the restructuring and should **not** dominate the efforts. Educational research evidence suggests strongly that a feeling of *community* has a greater influence in determining educational outcomes than does curriculum organization. This very important component of the restructuring efforts should not be lost. Do not lose sight of the career focus of the restructuring goal also.

5. Educational research shows conclusively that *parental involvement* in the educational process is extremely important for achieving educational outcomes. Added attention should be given to this restructuring component.



**EVALUATION REPORT FOR YEAR 2 (1993-1994)**

**THE HEALTH SCIENCE SCHOOL**

**KENT-MERIDIAN HIGH SCHOOL**

Prepared by:

Jeffrey T. Fouts

Professor of Education

Seattle Pacific University

July 29, 1994

## TABLE OF CONTENTS

|   |           |
|---|-----------|
| List of Tables  | page<br>3 |
| Executive Summary   | 4         |
| Introduction  | 6         |
| Research Questions  | 6         |
| Participants in the Program   | 6         |
| Year 2 Results  | 8         |
| <br><u>Question 1 -- To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?</u> |           |
| Sources of data   | 8         |
| Findings  | 8         |
| Summary and Conclusions   | 12        |
| <br><u>Question 2 -- How has the Health Science School affected typical educational outcomes and student behaviors?</u>   |           |
| Sources of data   | 12        |
| Findings  | 12        |
| Summary and Conclusions   | 16        |
| <br><u>Question 3 -- How do teachers and parents perceive the program?</u>  |           |
| Sources of data   | 16        |
| Findings  | 16        |
| Summary and Conclusions   | 20        |
| Recommendations   | 21        |

## List of Tables

|  | page |
|--|------|
| <b>Table 1 -- Classroom Environment Scale Results for Health Science I and Tenth Grade Comparison Group</b>  | 9    |
| <b>Table 2 -- Classroom Environment Scale Results for Health Science II and an Eleventh Grade Comparison Group</b>   | 11   |
| <b>Table 3 -- Health Science I and Tenth Grade Comparison Group Absentee and Grade Point Averages</b>  | 13   |
| <b>Table 4 -- Estes Attitude Scale Mean Scores and Effect Sizes for HSS I Students and a Comparison Group of Tenth Grade Students From the Traditional Program</b> | 13   |
| <b>Table 5 -- Health Science II and Eleventh Grade Comparison Group Absentee and Grade Point Averages.</b>   | 14   |
| <b>Table 6 -- Health Science II and Eleventh Grade Comparison Group Absentee and Grade Point Averages.</b>   | 15   |
| <b>Table 7 -- Health Science II and Eleventh Grade Comparison Group Absentee and Grade Point Averages.</b>   | 15   |
| <b>Table 8 -- Health Science I Confidential Parent Questionnaire Results</b>   | 17   |
| <b>Table 9 --Health Science II Confidential Parent Questionnaire Results</b>   | 19   |

## EXECUTIVE SUMMARY

This report focuses on the results of the second year (1993-1994) of the Health Science School. The Health Science School focuses on an integrated curriculum, cooperative learning, the direct application of learning to life situations, flexible scheduling, cohort learning, teacher cooperation and communication, and alternative assessment strategies. HSS I is the first year for this year's 10th graders while HSS II (11th grade) students are continued from last year. There are three specific findings.

1. Program Implementation (p. 8) -- The Health Science School added a second group of students this year and many new faculty. Success of the program at this point differs by level of the School. There is little evidence that HSS I was successful in achieving the program goals to any large degree.

The CES results indicate that students in HSS II did continue to receive an educational experience that was substantially different from students in the regular program. The students continued to receive a degree of curriculum integration and to experience a more cohesive learning environment between student and student and between student and teacher. However, the results of the CES, faculty interviews, and parent questionnaires indicate that a degree of the distinctiveness was lost from last year, as the degree of innovation, cohesiveness and integration declined.

2. Educational Outcomes (p. 12) -- Participation in the Health Science School did not result in higher grades for students and, in fact, may have resulted in a slight decline in HSS I. CFAS results suggest substantially higher scores for HSS II students. Attitudinal measures showed that participation in HSS I did not result in improved student attitudes, while participation in HSS II may have had positive impact on student attitudes. Full-day absences were the same for both HSS I and HSS II students and their respective comparison groups. This differs significantly from last year's result when the decline of full-day absences were pronounced for HSS students. However, HSS I students had 41% fewer single class period absences and HSS II students had 30% fewer single class period absences.

CFAS results and attitudinal measures for HSS II students indicate that the program did have efficacious results, but that did not translate into higher grades. The results from these assessments correspond to the differences noted previously between the implementation of HSS I and HSS II this year.

3. Teacher and Parent Perceptions (p. 16) -- The faculty of HSS I believed that they had limited success in implementing the desired program, resulting in a frustrating and taxing year for them. The challenges of new faculty and administrators in the program were compounded by lack of planning time and leadership. A considerable number of parents are skeptical of the program at this point.

The faculty of HSS II had a much more positive year than did HSS I, but with last year as a reference, many of the teachers recognize that things were different this year due to personnel

changes, lack of leadership, lack of planning time, and loss of common vision. These are the challenges faced by all new programs as they struggle to establish themselves within a school framework. Parents also noticed the changes this year, expressing some dissatisfaction.

**Recommendations to the Health Science School Faculty: (p. 22)**

1. The leadership question of the Health Science School for 1994-95 must be resolved at the earliest possible date.
2. Curriculum development, the continued development of the integrated model, and a consensus on its implementation must move forward.
3. Once this has been accomplished, faculty should evaluate which classroom and curricular practices were successful and which need revision. The faculty must work at clarifying course outcomes, expectations, and timelines for students and communicate those clearly.
4. Curriculum integration is only one aspect of the restructuring and should not dominate the efforts. Community and career orientation should also receive equal attention.
5. Parental involvement was an important part of the success of the program in its first year. Indications are that parental involvement declined during this second year. Added attention should be given to this restructuring component.
6. Consider reimplementing the student discipline procedures as they existed in the first year of the program. The success of the first year's discipline plan for the Health Science School was remarkable and should not be lost.

## INTRODUCTION

The evaluation plan for the Health Science School at Kent-Meridian High School employs process and product evaluations for the school years 1992-93, 1993-94, and 1994-95. The plan was designed with participation of the faculty and administration of the Health Science School. Interim reports are to be prepared at the end of the 1992-93 and 1993-94 school years, and a summative evaluation report to be completed in the summer of 1995. The design of the evaluation uses quantitative information (hard data) and qualitative information (soft data) for the evaluation of specific academic, affective, and attitudinal outcomes in the Health Science School.

This report focuses on the results of the second year (1993-94) of the Health Science School. During the 1993 school year a second group of students began the program as tenth graders (Health/Science I) and last years group continued into their second year (Health/Science II). Evaluation results will be reported for each of these two groups.

### Research Questions

In this second year of the program, the evaluation focused on the following research questions:

1. To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?
2. How has the Health Science School affected typical educational outcomes and student behaviors?
3. How do teachers and parents perceive the program?

### Participants in the Programs

Throughout the evaluation process in this second year, data were collected from Health Science students, teachers and parents, and from a comparison group of students in the regular tenth and eleventh grade school program. Any evaluation of student outcomes in a special program necessitates a comparison group of students to use as a standard. Students in the Health Science School were self-selected, and since participation was not mandatory there is a degree to which the participants in the program were not truly representative of the rest of the student body. This is an inherent weakness in evaluation research, and relegates the research design to a causal-comparative model rather than experimental or quasi-experimental. Nonetheless, a comparison group can be used as a yardstick, with the recognition that the design is less than ideal and that the results must be interpreted with this design weakness in mind.



HSS I students. To determine the extent to which the Health Science students were representative of the general tenth grade population, a comparison group of tenth grade students was selected at random (n=89) from the regular education program. The two groups of students were compared on ninth grade GPA.

|                           | Mean | Median | Std Dev |
|---------------------------|------|--------|---------|
| HSS I<br>(n=67)           | 2.62 | 2.66   | .85     |
| Regular Program<br>(n=89) | 2.37 | 2.58   | 1.11    |

The above data, GPA distributions and statistical analysis, show the following:

1. The students attracted to the HSS I program are more academically oriented students than are the students in the regular program. The HSS I students have higher GPA scores than do the students in the regular program. They are also less diverse in academic achievement than are students in the regular program.
2. The '93-'94 tenth grade HSS I students have lower ninth grade GPA scores than did the first group of tenth grade students last year (2.88).
3. Last year's comparison group had a ninth grade GPA of 2.61 compared to this year's 2.37. It is important to consider that the tenth grade students in the regular program this year are representative of students in this regular program, but not representative of all tenth graders *in general*. The self-selection of a higher percentage of stronger students into the HSS and IBGS programs is the most probable explanation for this lower GPA of regular program students. When this is considered, the HSS students are somewhat representative of *all* tenth graders in general, although still not as diverse, and most notably having fewer very low achievers.

HSS II students. Based on the GPA scores, writing sample scores, and test scores obtained and reported last year, it was determined that the students who began the program last year and comprise this year's HSS II group were slightly above, yet still fairly representative of Kent-Meridian students in general.

## YEAR 2 RESULTS

Question 1 -- To what degree has the program been successful in implementing the designated educational program and providing an alternative educational experience to the traditional program at Kent-Meridian High School?

### Sources of data

In April and May a modified version of the Classroom Environment Scale (CES) was completed by both the Health Science I & II students and two comparison groups, one randomly selected from tenth graders in the regular program, and the second randomly selected from eleventh graders in the regular program. The CES is a recognized research assessment measure of school and classroom climate. For the purposes of this evaluation the CES wording was modified slightly to reflect students' perceptions of their overall educational program, rather than a particular classroom. In June an outside evaluator conducted interviews with the faculty of both levels of the Health Science Schools. Parents were given an end of the year questionnaire regarding their perceptions on the program.

### Findings

The intent of this program is to provide an alternative educational experience to students. The Health Science School approach focuses on an integrated curriculum, cooperative learning, the direct application of learning to life situations, flexible scheduling, cohort learning, and alternative assessment strategies. Such an approach would differ considerably from what most students experience in high school when learning is segregated, courses are taken independent of each other, the environment is impersonal, and learning and assessment are traditional. When contrasting two such learning approaches student perceptions of their educational experiences and the learning environment should differ. The degree to which these facets of the Health Science program were actually implemented in the classrooms is reflected by the results of the CES.

Health Science School I. The results of the CES assessment for HSS I and a comparison group of tenth grade students and effect sizes are presented in Table 1. Possible scores on the CES range from 0 to 10 for each scale. An effect size is a widely recognized method for interpreting statistics that considers the influence of averages, but also variations within groups. It is computed by subtracting the means of the groups being compared, divided by the standard deviation of the comparison group. An effect size of less than .2 is considered negligible, .2 is considered a small difference, .5 is considered a moderate difference, and .8 is considered a large difference.

**Table 1**  
**Classroom Environment Scale Results for Health Science I and Tenth Grade Comparison Group**

|                         | HSS I<br>mean (sd) | Comp. Group 10th gr.<br>mean (sd) | Effect<br>Size      |
|-------------------------|--------------------|-----------------------------------|---------------------|
| <i>Involvement</i>      | 4.8 (1.9)          | 4.8 (2.4)                         | .0                  |
| <i>Affiliation</i>      | 5.7 (2.1)          | 5.3 (2.3)                         | .17                 |
| <i>Teacher Support</i>  | 4.1 (2.6)          | 4.9 (2.4)                         | .33 (small)         |
| <i>Task Orientation</i> | 5.9 (2.0)          | 5.9 (2.2)                         | .0                  |
| <i>Competition</i>      | 5.9 (2.0)          | 5.7 (2.0)                         | .1                  |
| <i>Order and Org.</i>   | 2.8 (1.9)          | 3.8 (2.2)                         | .45 (small to mod.) |
| <i>Rule Clarity</i>     | 4.4 (2.3)          | 6.0 (2.1)                         | .73 (mod. to large) |
| <i>Teacher Control</i>  | 4.5 (2.4)          | 5.1 (2.4)                         | .25 (small)         |
| <i>Innovation</i>       | 4.8 (1.9)          | 4.8 (2.4)                         | .0                  |

The results of the CES indicate that the perceived educational environment of the Health Science I students did not differ substantially in a number of areas, and particularly in the direction desired given the goals of the HSS program. The results do suggest however, that the classes in the program were less dominated by the teacher, given the combination of Order and Organization, Rule Clarity, and Teacher Control scores. This may be the result of a limited attempt to implement the program and methodology as designed, or it may reflect some degree of classroom management problems given the negligible Innovation difference.

These results were supported by the interviews conducted with the HSS I faculty at the end of the school year. While there was a variety of individual experiences during the year, the interviews with the HSS I faculty revealed the following:

1. There was not a common vision of what the integrated curriculum should be. Faculty were not in agreement as to whether the focus of instruction should be the interdisciplinary projects, with content secondary, or primary focus on content with less emphasis on the projects.

Consequently, this component of the HSS I program was not implemented to the extent it was last year.

2. Program implementation was handicapped because the new teachers this year were not adequately inducted into the program. Teamwork overall in the program was lacking. This was undoubtedly due to the large turnover in personnel and a lack of planning time.
3. There was a feeling that students in HSS I never really "bonded" as they did last year.
4. The large turnover in personnel and resulting lost leadership was not replaced during the year. In the words of one teacher, "the program just never really got off the ground this year."

The results of the parent questionnaire are presented in Table 8. The return rate for the questionnaire was low, about 35%, but there was exhibited considerable concern by parents about the program. Few respondents included written comments about their perception of the program, but the most common reference was to problems with disorganization and the group work.

Health Science School II. The results of the CES assessment for HSS II and a comparison group of eleventh grade students and effect sizes are presented in Table 2.

The CES results for the HSS II students and eleventh grade comparison group indicate that the HSS program did provide a different educational experience than did the traditional program. For the comparison group, the low scores on the Involvement and Innovation scales are typical of most high school programs. Generally, the comparison group of students have a relatively low attentive interest in the classes and the teachers use traditional teaching strategies with little variety. The Health Science program produced high scores in these areas, showing a great deal of student involvement in the classes, with the teachers using new and diverse strategies and activities on a regular basis.

In addition, the results show that the Health Science students feel a great deal of group cohesion and work together to an unusual degree (Affiliation). At the same time there is a closeness between the students and teachers that is not felt between the regular program students and teachers (Teacher Support). While this more personalized approach is evident in these results, the Health Science School did not sacrifice classroom control or discipline. The classes remained relatively orderly and organized (Order and Organization), with less teacher dominance of the environment (Rule Clarity and Teacher Control). *However*, it is important to note that the HSS II scores on the Involvement, Affiliation, Teacher Support, and Innovation scales, while still differing from the comparison group, are considerably lower than last years scores, meaning that the difference this year between this group and the comparison group is much less pronounced.

**Table 2**  
**Classroom Environment Scale Results for Health Science II and an Eleventh Grade Comparison Group**

|                         | HSS II<br>mean (sd) | Comp. Group 11th gr<br>mean (sd) | Effect<br>Size      |
|-------------------------|---------------------|----------------------------------|---------------------|
| <i>Involvement</i>      | 6.3 (2.3)           | 3.8 (2.4)                        | 1.0 (large)         |
| <i>Affiliation</i>      | 6.6 (2.2)           | 5.3 (2.1)                        | .62 (moderate)      |
| <i>Teacher Support</i>  | 6.1 (2.8)           | 4.3 (2.4)                        | .75 (mod. to large) |
| <i>Task Orientation</i> | 5.5 (1.9)           | 6.2 (2.0)                        | .35 (small)         |
| <i>Competition</i>      | 6.3 (1.7)           | 5.7 (1.9)                        | .32 (small)         |
| <i>Order and Org.</i>   | 3.4 (2.5)           | 3.7 (2.4)                        | .13                 |
| <i>Rule Clarity</i>     | 5.0 (2.4)           | 6.2 (2.4)                        | .5 (moderate)       |
| <i>Teacher Control</i>  | 4.2 (2.5)           | 5.5 (2.5)                        | .52 (moderate)      |
| <i>Innovation</i>       | 6.3 (2.3)           | 4.0 (2.0)                        | 1.14 (large)        |

(Note: Some of the students in HSS II were only in the program a half day. These students were included in the HSS II analysis. Separate analysis of the CES results for these half-time students showed no difference between them and the full-time HSS II students.)

These findings were supported by the interviews with teachers. Every teacher in the program stated that they still believed that integration (people & subjects) is important and the direction education in general, and Kent-Meridian specifically, should proceed. However, most of the teachers also commented that there no longer was a common vision of what the integrated curriculum should be as there was last year, but that that was understandable because of new teachers being added to the program. It was also noted that cohesion among faculty was lower than last year, and that cohesion between faculty and students was also down. Those that were in the program last year have noticed a decline in student excitement about the program, and have received comments about the lack of integration among the subjects when compared to last year. There was agreement among the teachers that stronger leadership and more planning time for the program is needed if it is to continue to move forward.

These changes in the program were also noted by parents. Parent satisfaction with the second year of the program was down. While many parents still speak highly of the program, a larger percentage than last year are dissatisfied. The changes this year were noted by a number of parents, and in the words of one involved parent, "We do not see nor feel that same level of commitment, dedication, and time being devoted to the program this year."

(Note: A large percentage of the students were involved in job shadowing this second year, and that was viewed as going reasonably well.)

#### Summary and conclusions

The Health Science School added a second group of students this year, and many new faculty. Success of the program at this point differs by level of the School. There is little evidence that HSS I was successful in achieving the program goals to any large degree. This is not to say that the students in HSS I suffered during this year or received an inferior education to students in the traditional program. The CES assessment and teacher interview suggest however, that it was not substantially *different* than what students in the traditional program experienced. The CES results indicate that students in HSS II did continue to receive an educational experience that was substantially different from students in the regular program. The students continued to receive a degree of curriculum integration and to experience a more cohesive learning environment between student and student and between student and teacher. However, the results of the CES, faculty interviews, and parent questionnaires indicate that a degree of the distinctiveness was lost from last year, as the degree of innovation, cohesiveness and integration has declined.

#### Question 2 -- How has the Health Science School affected typical educational outcomes and student behaviors?

##### Sources of data.

Grade point averages, absentee rates, and Estes Attitude Scales (EAS) for English, math, and science for the students in both levels of the Health Science School and random samples of students selected from the regular tenth grade and eleventh grade program were calculated and compared. The EAS was administered at the end of the year (June). In addition the Curriculum Frameworks Assessment System (CFAS) results for HSS II students were compared to the scores received by the rest of the eleventh graders at Kent-Meridian High School. The CFAS was administered in November, 1993.

##### Findings.

Health Science School I. The absentee and grade point averages for the Health Science I students and a tenth grade comparison group of students is presented in Table 3. The grades received by the HSS I students were virtually identical to the tenth grade students in the traditional program. These HSS I students were identified at the beginning of the year as

somewhat higher in academic achievement when compared to the comparison group based on ninth grade GPA scores. During this year the differences disappeared as they did with last year's group. This may be due to several factors including teacher differences and differing or higher learning expectations in HSS I. Full-day absences did not differ between the groups, but the HSS I students had substantially fewer single period absences.

The results of the Estes Attitude Scale (EAS) for the Health Science I students and a tenth grade comparison group of students is presented in Table 4. These mixed results indicate that participation in the Health Science School did not result in overall higher scores (more positive attitudes) toward the subjects of English, math, and science than did participation in the regular program.

Table 3  
Health Science I and Tenth Grade Comparison Group Absentee and Grade Point Averages.

|                                | <u>HS S I</u> | <u>Other 10th Graders</u> | <u>Effect Size</u> |
|--------------------------------|---------------|---------------------------|--------------------|
| First Semester GPA             | 2.5           | 2.5                       | --                 |
| Second Semester GPA            | 2.5           | 2.4                       | --                 |
| TOTAL Year GPA                 | 2.5           | 2.5                       | --                 |
| Average Days Absent-           | 8.3           | 7.6                       | .1                 |
| Average Single Period Absences | 20.7          | 34.1                      | .5(moderate)       |

Table 4  
Estes Attitude Scale Mean Scores and Effect Sizes for HSS I Students and a Comparison Group of Tenth Grade Students From the Traditional Program

|                | <u>HSS I</u><br><u>mean</u> | <u>Other Tenth Graders</u><br><u>mean</u> | <u>effect size</u> |
|----------------|-----------------------------|---|--------------------|
| <i>English</i> | 41.3                        | 46.0                                      | .37 (small)        |
| <i>Math</i>    | 51.5                        | 52.0                                      | .05                |
| <i>Science</i> | 52.2                        | 49.7                                      | .28 (small)        |

Health Science School II. The absentee and grade point averages for the Health Science II students and an eleventh grade comparison group of students is presented in Table 5. The grades received by the HSS II students were virtually identical to the eleventh grade students in the traditional program. These HSS II students were identified at the beginning of last year as

representative of their peers in the traditional program. Consistent with last year's results, grades did not improve over the students in the traditional program. The failure of students to receive higher grades may be due to the nature of the program. However, it also may be due to several factors including teacher differences and differing or higher learning expectations in HSS II. Full-day absences did not differ between the groups, but the HSS II students had substantially fewer single period absences.

Table 5  
Health Science II and Eleventh Grade Comparison Group Absentee and Grade Point Averages.

|                                | <u>Health Science II</u> | <u>Other 11th Graders</u> | <u>Effect Size</u> |
|--------------------------------|--------------------------|---------------------------|--------------------|
| First Semester GPA             | 2.4                      | 2.5                       | --                 |
| Second Semester GPA            | 2.6                      | 2.7                       | .1                 |
| TOTAL Year GPA                 | 2.5                      | 2.6                       | .1                 |
| Average Days Absent-           | 6.0                      | 6.1                       | --                 |
| Average Single Period Absences | 18.4                     | 26.4                      | .35(small)         |

The results of the Estes Attitude Scale (EAS) for the Health Science II students and an eleventh grade comparison group of students is presented in Table 6. The small differences between the scores all favor the HSS II students and may be explained two possible ways. First, participation in the Health Science School did result in overall higher scores (more positive attitudes) toward the subjects of English, math, and science than did participation in the regular program. That is to say that the program had a desirable affect on student attitudes. However, results of analysis from last year indicated that HSS II students were slightly higher in academic ability than were the students in the regular program. Thus, the HSS II students may also have scored higher on the EAS because of that factor. Because this is the first year of administration of the EAS, the differences noted here must be considered as baseline data to be followed from year to year. In the future increases in the difference between the groups may be attributed more clearly to the affects of the program.

The results of the Curriculum Frameworks Assessment (CFAS) for the Health Science II students and the remainder of the eleventh grade students at Kent-Meridian are presented in Table 7. The results of this assessment show moderately higher scores for HSS II students than for the eleventh graders in the traditional program. The moderate differences between the scores may be explained three possible ways. First, participation in the HSS program had a desirable affect on this important educational outcome. Second, analysis from last year indicated that HSS II students were slightly higher in academic ability than were the students in the regular program. The differences noted here may be attributed to that factor. Third, only 65 of the 76 students that were in HSS II last year were in HSS II during this second year. This attrition may have consisted of lower achieving students, thus raising the HSS II mean.



Table 6  
Estes Attitude Scale Mean Scores and Effect Sizes for HSS II Students and a Comparison Group of Eleventh Grade Students From the Traditional Program

|                | HSS II<br><u>mean</u> | Traditional Program<br>Eleventh Graders<br><u>mean</u> | <u>effect size</u> |
|----------------|-----------------------|--|--------------------|
| <i>English</i> | 49.8                  | 47.5   | .22 (small)        |
| <i>Math</i>    | 54.6                  | 51.7   | .28 (small)        |
| <i>Science</i> | 54.4                  | 52.5   | .22 (small)        |

Table 7  
Curriculum Frameworks Assessment System NCE Scores and Effect Sizes for HSS II Students and Eleventh Grade Students in Traditional Program

|                               | HSS II<br><u>mean</u> | Traditional Program<br>Eleventh Graders<br><u>mean</u> | <u>effect size</u> |
|-------------------------------|-----------------------|--|--------------------|
| <i>English/Language Arts</i>  | 57.2                  | 44.7   | .60 (moderate)     |
| <i>History/Social Science</i> | 57.0                  | 44.7   | .59 (moderate)     |
| <i>Mathematics</i>            | 56.1                  | 46.0   | .48 (moderate)     |
| <i>Science</i>                | 55.8                  | 46.6   | .44 (sm. mod.)     |

Given the nature of the integrated curriculum used in the HSS II program and the nature of the CFAS test, it is very possible that the curriculum has had a desirable affect on student learning. The CFAS attempts to measure a degree of integration of knowledge possessed by the students. Consequently, the moderate effect sizes favoring HSS II students may well be due to this unique program, while still considering the above limitations. Last year's evaluation showed that HSS II students were above the students in the traditional program by small effect sizes (approximately .2). The differences this year on the CFAS are moderate, .46 to .6. Continued yearly evaluation is needed to determine the true affect of the HSS II curriculum, however.

### Summary and conclusions.

Participation in the Health Science School did not result in higher grades for students and, in fact, may have resulted in a slight decline in HSS I. CFAS results suggest substantially higher scores for HSS II students. Attitudinal outcomes showed that participation in HSS I did not result in improved student attitudes, while participation in HSS II may have had positive impact on student attitudes. Full-day absences were the same for both HSS I and HSS II students and their respective comparison groups. This differs significantly from last year's result when the difference in full-day absences was pronounced. However, HSS I students had 41% fewer single class period absences and HSS II students had 30% fewer single class period absences.

In the academic area as measured by GPA, Health Science School participation did not produce positive results during this first year for HSS I students or during the second year for HSS II students. However, CFAS results and attitudinal measures for HSS II students indicate that the program did have efficacious results, but that did not translate into higher grades. The results from these assessments correspond to the differences noted previously between the implementation of HSS I and HSS II this year.

### Question 3 -- How do teachers and parents perceive the program?

#### Sources of data.

An end of the year interview of the teachers was conducted to determine their perceptions of the program, its implementation, and its future. Parents were mailed a confidential questionnaire at the end of the year.

#### Findings.

Health Science School I. Interviews with the faculty of HSS I revealed considerable ambivalence about the school year and the nature of the program. While there was considerable agreement about the potential value of the integrated curriculum and the schools-within-a-school concept, there was a common acknowledgment that the year had not gone particularly well, and there was a skepticism about the future of the program. The following common perspectives emerged from the interviews.

1. There is not a common vision among the HSS I faculty of what the integrated curriculum should be.
2. New teachers were not adequately inducted into the program this year.
3. Students never really "bonded" as they did last year.
4. There is a perceived lack of leadership for the HSS I faculty. All teachers agreed that the assistant principal assigned to the task was given to many other administrative responsibilities to be successful with the Health Science School. Consequently, communication and cooperation within the faculty suffered. There was no consensus among the faculty about who that leader might be from within the group.

The results of the HSS I parent questionnaire are presented in Table 8. The low return rate of 35% means that the results must be interpreted with caution and may not be representative of all parents in the program. However, these results do correspond with the other evaluation data for the HSS I program. The questionnaire results showed that parents were divided over their view of the program. Consistently about 50% of the parents responded negatively to the seven questions, 61% indicating they would not want their child in the program if they had it to do over again. This indicates considerable dissatisfaction by a large number of people. However, about 40-45% indicated satisfaction with the program. These findings were consistent with the written comments where both satisfaction and dissatisfaction were expressed. The following two separate comments probably reflect this division.

"The Health Science Program suited my child perfectly. She seemed to thrive in the diversity and challenges of the program."

"This program was made out to be much better than it was."

The division among the parents this year are a sharp contrast to last year's parent questionnaire results where 85-90% of the parents responded positively to the questions and less than 5% of the responses were negative.

Table 8  
Health Science I Confidential Parent Questionnaire Results

---

|  |       |          |                      |           |
|--|-------|----------|----------------------|-----------|
| 1. My child seems to have a positive attitude about their school experience this year. |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 5%   | 39%   | 17%      | 39%                  |           |
| 2. Participation in the Health/Sciences School has been beneficial to my child.        |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 17%  | 39%   | 22%      | 17%                  | 5%        |
| 3. My child has demonstrated increased interest in school this year.                   |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 6%   | 22%   | 44%      | 17%                  | 11%       |

4. Participation in the Health/Sciences School has had a positive impact on my child's self-confidence.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 6%             | 28%   | 33%      | 11%-              | 22%       |

5. Overall, I have been pleased with my child's educational program this year.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 17%            | 28%   | 33%      | 17%               | 5%        |

6. I would recommend participation in the Health/Sciences School or similar program to others in the District.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 11%            | 33%   | 39%      | 17%               |           |

7. If I had it to do over again, I would want my child in the Health/Sciences School.

| strongly agree | agree | disagree | strongly disagree | undecided |
|----------------|-------|----------|-------------------|-----------|
| 11%            | 22%   | 39%      | 22%               | 6%        |

Health Science School II. Interviews with the HSS II faculty resulted in many diverse comments. While there were frustrations at times, the teachers continue to perceive it as a positive experience and are cautiously committed to the belief that this is the proper direction for Kent-Meridian High School. However, much of the enthusiasm for the program that existed originally has been tempered by the realities of time constraints, personnel and leadership changes, personality conflicts, and limited resources. In general, there were several recurring themes.

1. The teachers still believe in the integration (people & subjects) as important and the direction to go. However, there is no longer a common vision of how the integrated curriculum should be implemented.
2. Cohesion among faculty is lower than last year, as the integration of people component has been lost because of time constraints.
3. Cohesion between faculty and students is down.
4. Student excitement about the program is down.
5. There is a perceived lack of leadership and communication. All teachers agreed that the assistant principal assigned to the task was given too many other administrative responsibilities to be successful with the Health Science School.
6. Parent involvement is down from last year.

The results of the HSS II parent questionnaire are presented in Table 9. The low return rate of 30% means that the results must be interpreted with caution and may not be representative of all parents in the program. However, these results do correspond with the other evaluation

data for the HSS II program. The questionnaire results showed that the majority of parents were generally still positive about the program after the second year. Consistently about 55-70% of the parents responded positively to the seven questions. However, only 58% indicated they would want their child in the program if they had it to do over again, compared to 88% last year. While the overall responses are still somewhat positive, a significant percentage of parents appear to have questions about the program, with 42% not wanting or uncertain if they would put their child in the program if they had it to do over again. Only 12% responded this way last year. These findings were consistent with the written comments where both satisfaction and dissatisfaction were expressed. There were positive comments about the program, such as:

"Overall, the program is outstanding and has great merit."

However, many of the comments on the questionnaire were negative, with last year used as a frame of reference.

"We do not see nor feel that same level of commitment, dedication, and time being devoted to the program this year."

"This program is not what we were told it would be."

"Vastly different from last year."

"More enjoyable last year."

These more negative parent responses should not necessarily be interpreted as meaning HSS II is now a poor program. It is still considerably different than the traditional high school program. These responses may be a result of unrealistic expectations created last year by the excitement and implementation of a new program. Maintaining that level of cohesion and integration may not be possible in the long term.

Table 9  
Health Science II Confidential Parent Questionnaire Results

---

|  |       |          |                      |           |
|--|-------|----------|----------------------|-----------|
| 1. My child seems to have a positive attitude about their school experience this year. |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 32%  | 37%   | 10%      | 10%                  | 10%       |
| 2. Participation in the Health/Sciences School has been beneficial to my child.        |       |          |                      |           |
| strongly<br>agree  | agree | disagree | strongly<br>disagree | undecided |
| 37%  | 26%   | 10%      | 16%                  | 10%       |

3. My child has demonstrated increased interest in school this year.

|                   |       |          |                      |           |
|-------------------|-------|----------|----------------------|-----------|
| strongly<br>agree | agree | disagree | strongly<br>disagree | undecided |
| 26%               | 21%   | 16%      | 16%                  | 21%       |

4. Participation in the Health/Sciences School has had a positive impact on my child's self-confidence.

|                   |       |          |                      |           |
|-------------------|-------|----------|----------------------|-----------|
| strongly<br>agree | agree | disagree | strongly<br>disagree | undecided |
| 26%               | 42%   | 11%      | 5%                   | 16%       |

5. Overall, I have been pleased with my child's educational program this year.

|                   |       |          |                      |           |
|-------------------|-------|----------|----------------------|-----------|
| strongly<br>agree | agree | disagree | strongly<br>disagree | undecided |
| 21%               | 42%   | 5%       | 16%                  | 16%       |

6. I would recommend participation in the Health/Sciences School or similar program to others in the District.

|                   |       |          |                      |           |
|-------------------|-------|----------|----------------------|-----------|
| strongly<br>agree | agree | disagree | strongly<br>disagree | undecided |
| 32%               | 42%   | 5%       | 11%                  | 11%       |

7. If I had it to do over again, I would want my child in the Health/Sciences School.

|                   |       |          |                      |           |
|-------------------|-------|----------|----------------------|-----------|
| strongly<br>agree | agree | disagree | strongly<br>disagree | undecided |
| 32%               | 26%   | 5%       | 16%                  | 21%       |

### Summary and Conclusions.

The faculty of HSS I believed that they had limited success in implementing the desired program, resulting in a frustrating and taxing year for them. They attributed these problems to personnel changes in the faculty and administration, a lack of a clear vision of, or agreement on, the nature of the program they sought to implement. The challenges of new faculty and administrators in the program were compounded by lack of planning time and leadership, presenting serious obstacles to their success. A considerable number of parents are skeptical of the program at this point.

The faculty of HSS II had a much more positive year than did HSS I, but with last year as a reference, many of the teachers recognize that things were different this year due to personnel changes, lack of leadership, lack of planning time, and loss of common vision. These are the challenges faced by all new programs as they struggle to establish themselves within a school framework. Parents also noticed the changes this year, expressing some dissatisfaction.

## RECOMMENDATIONS

The history and pattern of educational innovation and change is typically one of initial excitement and success, followed by a cooling off period, and a gradual, sometimes abrupt, return to normalcy and traditional practices. At this point the Health Science School appears to be following this pattern. Last year's initial success and acclaim have been followed this year by struggles to duplicate that degree of success and change.

Last year's success of the Health Science School was attributable to a number of factors which have been shown to be necessary for successful change within a school. First, the program was based on a number of research proven ideas and educational theories that enhance education. Parental involvement, a more personalized educational environment, and real world applications are just a few of the good ideas incorporated into this program. Second, there was a genuine commitment and ownership of the program on the part of the teachers, administration, and parents. It was clear that this was not a program forced on them, but one that was initiated and fostered by their interests. Third, there was effective program leadership by building administrators who could make it all happen. Fourth, the teachers and administrators sought outside help when they recognized they lacked knowledge in particular areas. Fifth, there was a commitment of resources by the school and district to provide for the planning time necessary for planning and for the needed outside expertise. Lastly, formative and summative evaluation strategies were used to help keep the program on track and to keep people accountable.

Specific recommendations this year focus again on specific actions and each of which fall under one of these six factors.

1. The leadership question of the Health Science School for 1994-95 must be resolved at the earliest possible date. Expecting one assistant principal to provide the leadership of the schools while maintaining all the additional duties typical of an assistant principal does not appear to be a solution. One model would be a "dean" of the school appointed from existing faculty. This could serve as a leadership model for the other schools at Kent-Meridian.
2. Curriculum development, the continued development of the integrated model and a consensus on its implementation must move forward. Focus should be centered once again on the restructuring goal articulated by the school:

"Our goal is to provide an educational experience that makes connections among different academic subjects, emphasizes performance rather than knowledge, and prepares students to go to work or to further education and then to work after they graduate from high school."

With regards to integration, this is a modest goal and does not require a totally integrated curriculum. By avoiding the "tyranny of integration" trap, the task should become more

manageable and less time consuming. A general consensus or acceptance should be reached within each level of the Health Science School and between levels of the school. A consultant knowledgeable with this process can be of considerable assistance.

3. Once this has been accomplished, faculty should evaluate which classroom and curricular practices were successful and which need revision. The faculty must work at clarifying course outcomes, expectations, and timelines for students and communicate those clearly.

4. The curriculum integration is only one aspect of the restructuring and should **not** dominate the efforts. Educational research evidence suggests strongly that a feeling of *community* has a greater influence in determining educational outcomes than does curriculum organization. The feeling of community and cohesion was a large part of the success of the program in its first year. This very important component of the restructuring efforts should not be lost. Do not lose sight of the career focus of the restructuring goal also.

5. Educational research shows conclusively that *parental involvement* in the educational process is extremely important for achieving educational outcomes. Parental involvement was an important part of the success of the program in its first year. Indications are that parental involvement declined during this second year. Added attention should be given to this restructuring component.

6. Consider reimplementing the student discipline procedures as they existed in the first year of the program. The success of the first year's discipline plan for the Health Science School was remarkable and should not be lost.